

REMARKS

Favorable reconsideration and allowance of this application are requested.

1. Discussion of Claim Amendments

By way of the amendment instructions above, the prior pending claims have been revised so as to employ language more consistent with US practice (e.g., so as to use more affirmative language for the process steps and to change the transitional phraseology).

Claims 16-18 are new and are based on the disclosure appearing in the original specification at page 3, line 25 through page 4, line 14.

Therefore, upon entry of this amendment, claims 1-18 will remain pending herein for consideration.

2. Response to Substantive Rejection

The only issue to be resolved in this application is the Examiner's rejection of claims 1-15 under 35 USC §102(b) as allegedly anticipated by any of Niks et al (USP 4,219,589), Kayaert et al (USP 5,653,781) or Chanen et al (USP 6,217,630). In this regard, the Examiner asserts that:

“No distinction is seen between the processes disclosed by Niks et al, Kayaert et al and Chanen et al, and that recited in applicant's claims.”

In fact, closer examination of the applied patents to Niks et al, Kayaert et al and Chanen et al and the presently claimed subject matter reveals that significant, and indeed patentable, distinctions exist therebetween.

In this regard, applicants note that the present invention is novel as compared to the applied Niks et al, Kayaert et al and Chanen et al in several respects. For example, the present invention is novel in that a process is provided for the preparation of urea granules in a fluid-bed granulator by feeding a **film** of urea melt to a fluidized bed of solid urea nuclei, and bringing the nuclei into contact **with the film** so as to cause the nuclei to grow by solidification of the urea melt thereon to form the urea granules.

In contrast, both Niks et al and Kayaert et al disclose spraying a solution of the urea melt over the urea nuclei in the form of very fine droplets. Please see in this regard, column 4, lines 6-8 and column 4, lines 1-2 of both Niks et al and Kayaert et al. (*"The urea solution is sprayed over the urea nuclei in the form of very fine droplets."*) Clearly, therefore, neither Niks et al nor Kayaert et al disclose or suggest feeding a **film** of the urea melt to a fluidized bed of solid urea nuclei as contemplated by the present invention.

Chanen et al is similarly defective. In this regard, Chanen et al merely discloses that the urea and polylactide composition is fed to a generic granulator to provide granules. (See column 7, lines 64-67.) No disclosure is apparent in Chanen et al whereby a **film** of urea melt is fed to a fluidized bed of solid urea nuclei, such that the nuclei are brought into contact **with the film** so as to cause the nuclei to grow by solidification of the urea melt thereon to form the urea granules.

Most certainly, none of Niks et al, Kayaert et al and Chanen et al disclose or remotely suggest that a fluid-bed granulator may be fluidized by a gas stream which causes the nuclei to penetrate the film and to thereby be moistened with the urea melt (i.e., as defined by the applicant's claim 16), or that the step of forming a film of the urea melt can include forming a substantially closed conical film of the urea melt from at least one feeding device (i.e., as defined by the applicant's claims 10 or 17), or that the step of forming a film of the urea melt can include imparting rotation to the urea melt to

obtain the substantially closed conical film thereof (i.e., as defined by the applicant's claim 18).

Thus, none of the applied patents to Niks et al, Kayaert et al and Chanen et al anticipate the presently pending claims.

Nor are the presently pending claims obvious over such applied patents. In this regard, applicants note that Niks et al only discloses a biuret content of the solution but says nothing about the biuret content in the granulate, which may have increased. Also nothing is said in Niks et al about the water content, which may be very high, because the urea solution sprayed into the fluid bed only contains 75-85 % of urea, which means that 25-15 % is water. With such very high content of water it is practically impossible to end in the claimed range of 0.1-20 for the parameter required in claim 1. The mere fact that the Niks et al may be satisfied with the properties of the granulate does not mean that the high standards of the present invention have been obtained, particularly since Niks et al was filed many decades ago.

It should also be further noted that in the examples of Niks et al, formaldehyde is added to the granulate as an additive to increase the strength. Obviously therefore this is necessary to obtain the "good strength" that Niks et al observed. However, with the process of the present invention it is possible to obtain good strength even without feeding this additive at all. This alone shows the difference between Niks et al and the present invention and provides evidence that the process of the present invention is not inherently disclosed therein.

Kayaert et al is similar to Niks et al in many respects. For example, in Kayaert et al, a solution with a high water content was used and as noted above the solution was sprayed and not fed in the form of a film. Also in Kayaert et al, a considerable amount of formaldehyde is used as additive. Thus, the same comments as noted above with respect to Niks et al apply equally to Kayaert et al.

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In addition to not disclosing that the urea melt is fed to the fluid-bed granulator in the form of a film, Chanen et al discloses that a considerable amount of additive is added to the granulate, i.e., so as to prevent friability properties (see col. 2, line 25). In contrast, the present invention increases the properties of the granulate without necessarily incorporating any additives therein.

Thus, in view of the above comments, applicants suggest that the presently claimed invention is patentable over the applied Nix et al, Kayaert et al and Chanen et al patents.

3.. Fee Authorization

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140.

Respectfully submitted,

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